HEMODYNAMIC CHANGES ON LMA INSERTION WITH SAME DOSE OF ETOMIDATE AND VARYING DOSES OF PROPOFOL

Abstract

Background: Airway management is one of the most important skills in the field of anaesthesiology and an inability to secure the airway can lead to catastrophic results. However, endotracheal intubation is safe in healthy patients; it may trigger hemodynamic changes and induce reflex cardio-vascular responses. LMA is a simple supraglottic device. It is used to avert the reflex hemodynamic changes. This study was carried out to compare the hemodynamic changes on LMA insertion with same dose of Etomidate and varying doses of Propofol.

Methods: A total of 90 patients with ASA I and II underwent elective surgeries such as Fibroadenoma Breast – Excision, Gynaecomastia – Webster's procedure and duration of surgery less than 30 minutes were randomly allocated into one of the following groups. GROUP A- was administered with Etomidate 0.2 mg/kg + Propofol 0.5 mg/kg (30), GROUP B- Etomidate 0.2 mg/kg + Propofol 1 mg/kg (30) and GROUP C- Etomidate 0.2 mg/kg + Propofol 1.5 mg/kg (30). Double blinded randomized clinical trial study design was adopted. Hemodynamic parameters like Blood pressure (systolic, diastolic and mean arterial pressure), Heart rate and Oxygen saturation were recorded at base line, 30sec, 60sec, 1min, 3min, 5min, 7min and 10min after induction. Number of LMA attempts, time taken for LMA insertion, duration of apnea, side effects of the drug and complications of LMA insertion were compared in three groups.

Results: There was no statistical significant difference between demographic data. There was statistical significant difference in hemodynamic (Systolic, diastolic and mean arterial pressure) and mean pulse rate changes over time between the three groups. There was no statistical significant difference found in terms of oxygen saturation, number of LMA attempts and duration of LMA insertion. Duration of apnea was higher in Group C (134.36 ± 147.198) sec, whereas it was (112.16 ± 102.418) sec in Group B and (99.09 ± 103.000) sec in Group A. Hypotension was seen 2 patients of Group C and one patient of each Group A & B. Myoclonus was seen only in 2 patients of Group A. Complication during LMA insertion, cough was seen in only one patient in Group A.

Conclusion: This study results suggest that Group A and Group B regimens provides desirable hemodynamic stability following insertion of LMA than Group C. In addition to the favorable side effect profile, airway maintenance and respiratory depression was similar in all three groups.

Key words: Laryngeal mask airway, Propofol, Etomidate